

# **Agriculture Boot Camp AFO KINDOP Inspections**

**May 14, 2015**

**Department for Environmental Protection  
Energy & Environmental Protection Cabinet**



*To Protect and Enhance Kentucky's Environment*

**Kentucky**  
UNBRIDLED SPIRIT™

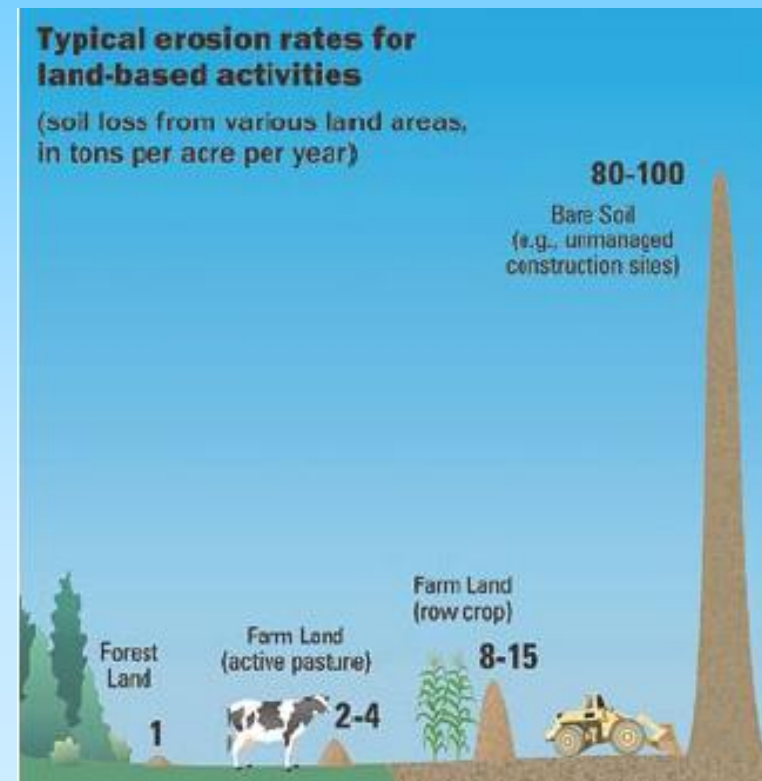
# Goal of the Division of Water

- *The mission of the Kentucky Division of Water is to manage, protect and enhance the water resources of the Commonwealth for present and future generations through voluntary, regulatory and educational programs.*



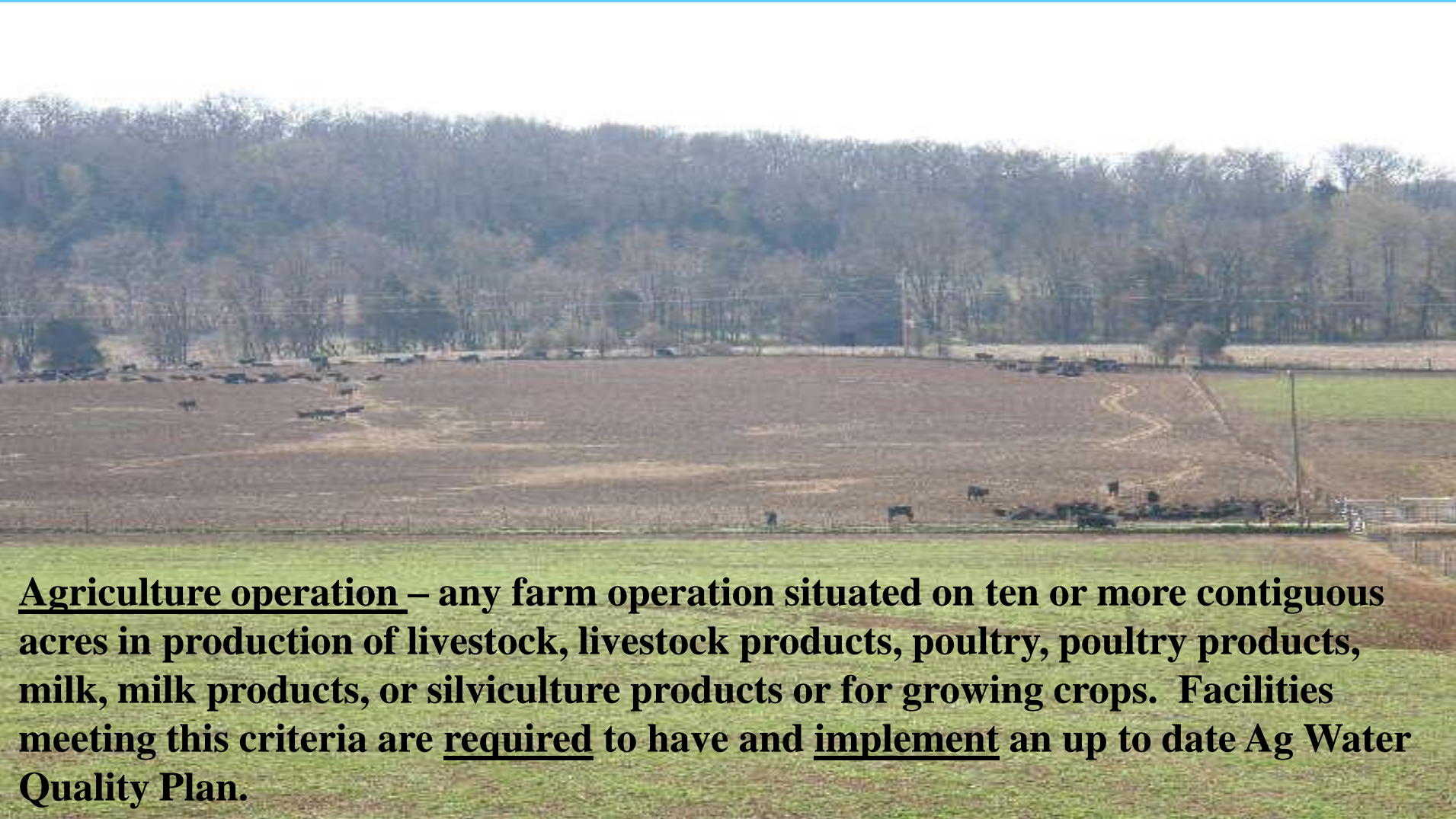
# Overview of KY's Water Quality Legislation

- The Agriculture Water Quality Act (Senate Bill 241) was passed by the Kentucky General Assembly in 1994.
- The main goal of the act is to protect surface and groundwater resources from pollution as a result of agriculture and silviculture activities.





# Agriculture operation defined



**Agriculture operation** – any farm operation situated on ten or more contiguous acres in production of livestock, livestock products, poultry, poultry products, milk, milk products, or silviculture products or for growing crops. Facilities meeting this criteria are **required** to have and **implement** an up to date Ag Water Quality Plan.



# Agricultural Water Quality Plan



**KRS 224.71-120**

## **Agricultural Water Quality Plan**

**Development and implementation of an up to date Ag Water Quality plan for the entire agriculture operation is essential for compliance. The plan should address all water related items of the entire farming operation not only the permit required items.**





# Agricultural Water Quality Plan

Items of concern should be set-backs, buffer strips, stream access/crossings, waste disposal, animal mortality, and additional BMP's as necessary. Plan should be available for inspection upon request.





# Agricultural Water Quality Plan



**Slopes denuded of vegetation along stream should be minimized with Best Management Practices (BMPs) such as constructed animal crossings, riparian area protection, planned grazing systems and proper grazing use.**



# Agricultural Water Quality Plan

**This lot can also benefit from the implementation of BMPs.**





# Agricultural Water Quality Plan

**This open throat sinkhole should be protected as a water body because it directly drains fertilizers and pesticides to groundwater. Suggested BMPs include conservation tillage, filter strips, or riparian area protection. Sinkholes are not waste disposal sites!!!**





# Additional Paperwork?



Work within “Waters of the Commonwealth” may require 401/404 Water Quality Certification and/or a Floodplain Construction permit.  
**Check with your regional office prior to beginning any stream work, dredging, gravel removal, or bridge or crossing construction!**





# Which farms require permits?

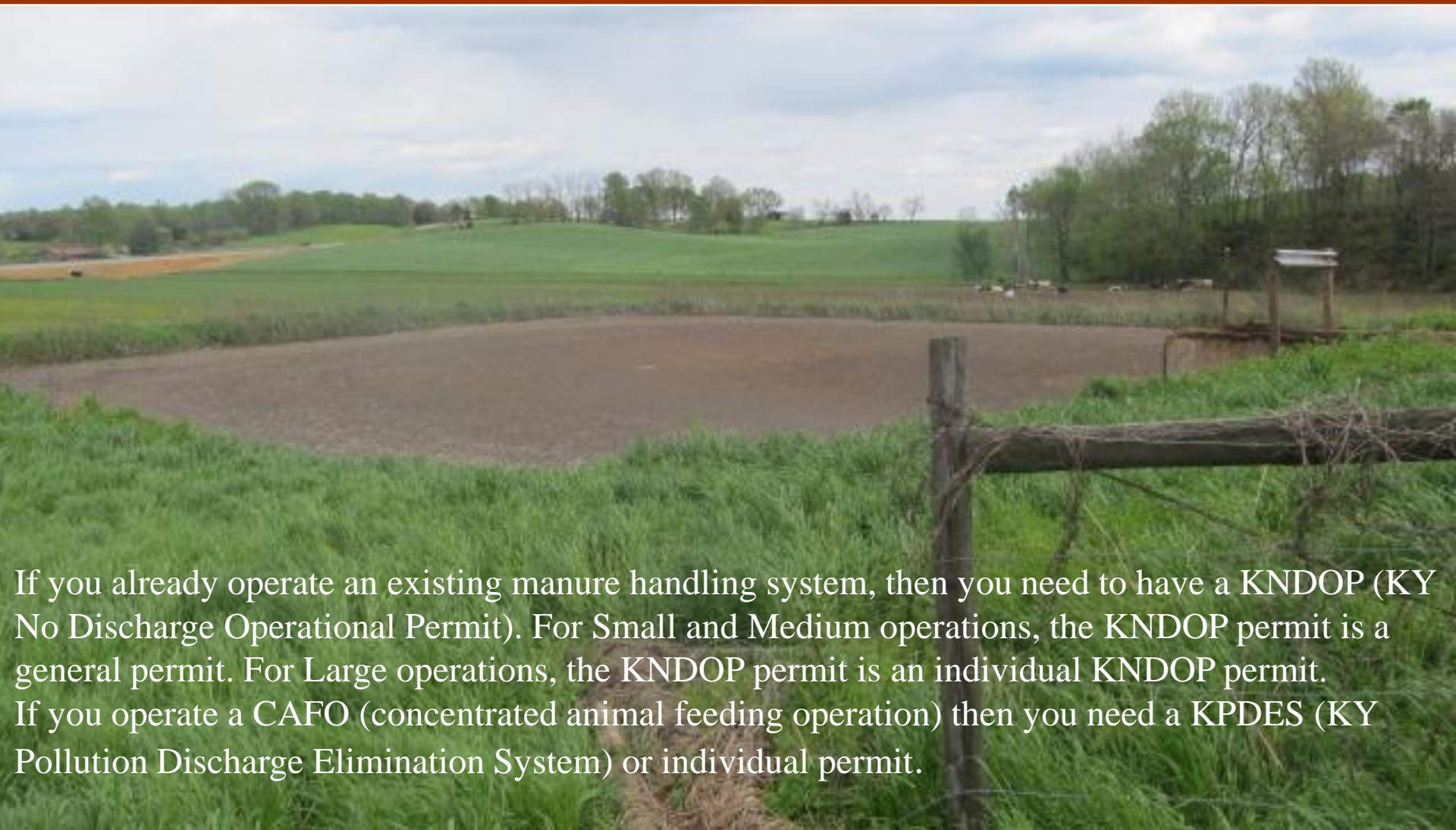


401 KAR 5:005 Section 1(3)

If you are constructing a new manure handling system (i.e. lagoon, stack pad, holding tank), then you need to use Short Form B to apply for a construction permit.



# Which farms require permits?

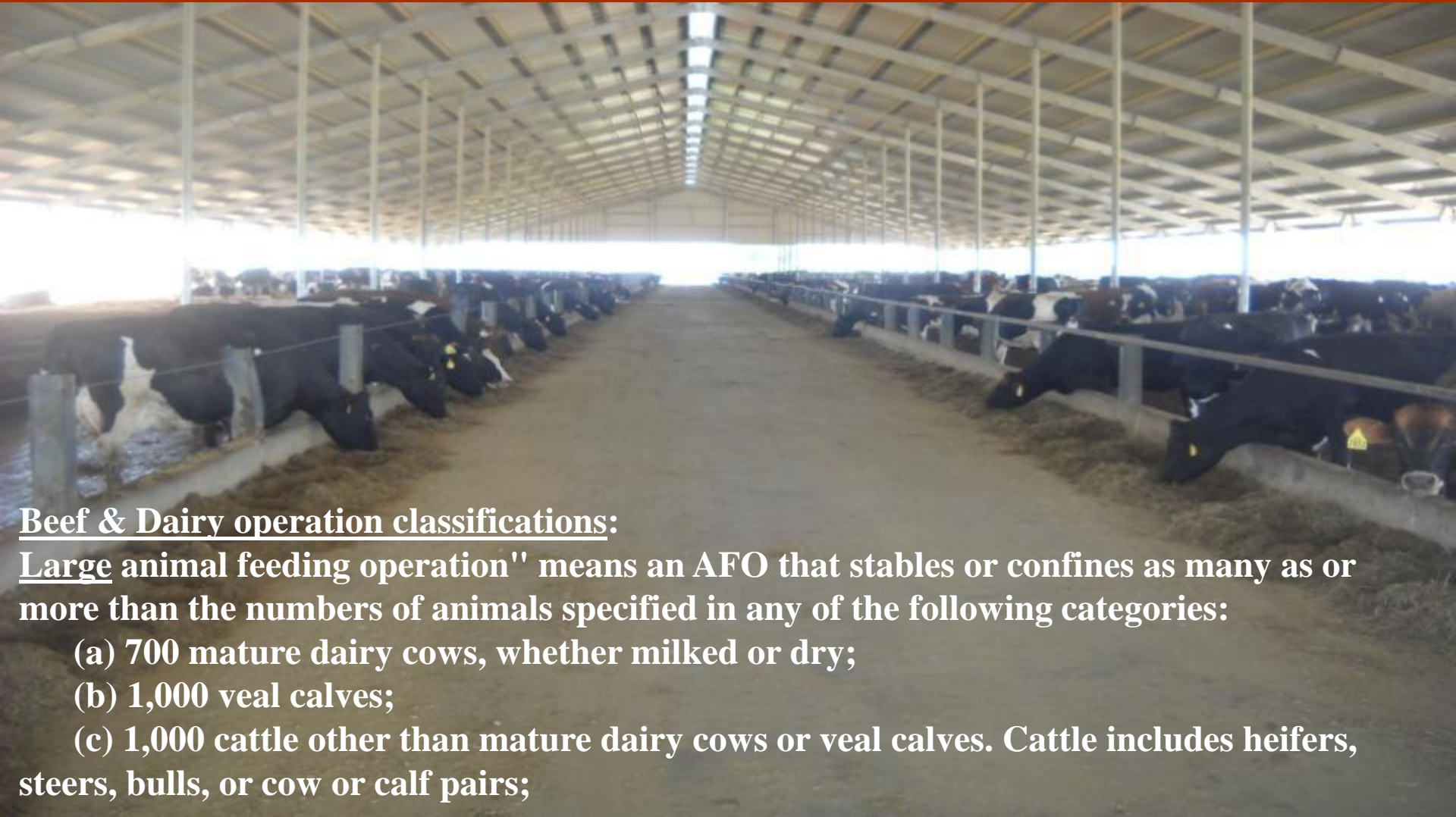


If you already operate an existing manure handling system, then you need to have a KNDOP (KY No Discharge Operational Permit). For Small and Medium operations, the KNDOP permit is a general permit. For Large operations, the KNDOP permit is an individual KNDOP permit. If you operate a CAFO (concentrated animal feeding operation) then you need a KPDES (KY Pollution Discharge Elimination System) or individual permit.





# Facility Classifications



## Beef & Dairy operation classifications:

Large animal feeding operation" means an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories:

- (a) 700 mature dairy cows, whether milked or dry;
- (b) 1,000 veal calves;
- (c) 1,000 cattle other than mature dairy cows or veal calves. Cattle includes heifers, steers, bulls, or cow or calf pairs;



# Facility Classifications

**Medium** animal feeding operation means an AFO that stables or confines the type and number of animals within any of the following ranges:

- (a) 200 to 699 mature dairy cows, whether milked or dry;
- (b) 300 to 999 veal calves;
- (c) 300 to 999 cattle other than mature dairy cows or veal calves. Cattle includes heifers, steers, bulls, or cow or calf pairs;

**Small** animal feeding operations are any facility with less animal units than those defined as medium.





# Large vs. Medium/Small

- Large operations, the KNDOP permit is an individual KNDOP permit (site specific)
  - Permit is active for 5 years and has a specific start and expiration date for each facility
  - To obtain the permit, Short Form B and the Nutrient Management Plan are submitted to Division of Water
  - Standard conditions plus specific conditions for Large facilities – siting criteria, visual inspections and additional monitoring
  - Permit is drafted and goes through a 30 day public notice comment period before issuance
- Small and Medium operations, the KNDOP permit is a general permit
  - The permit was activated March 1, 2011 and will expire February 29, 2016.
  - To obtain the permit, submit Short Form B to the Division of Water
  - Standard permit conditions – no point source discharge, no land apply on frozen ground etc, no runoff, report spills, AWQP, NMP
  - No public notice



# Required Paperwork

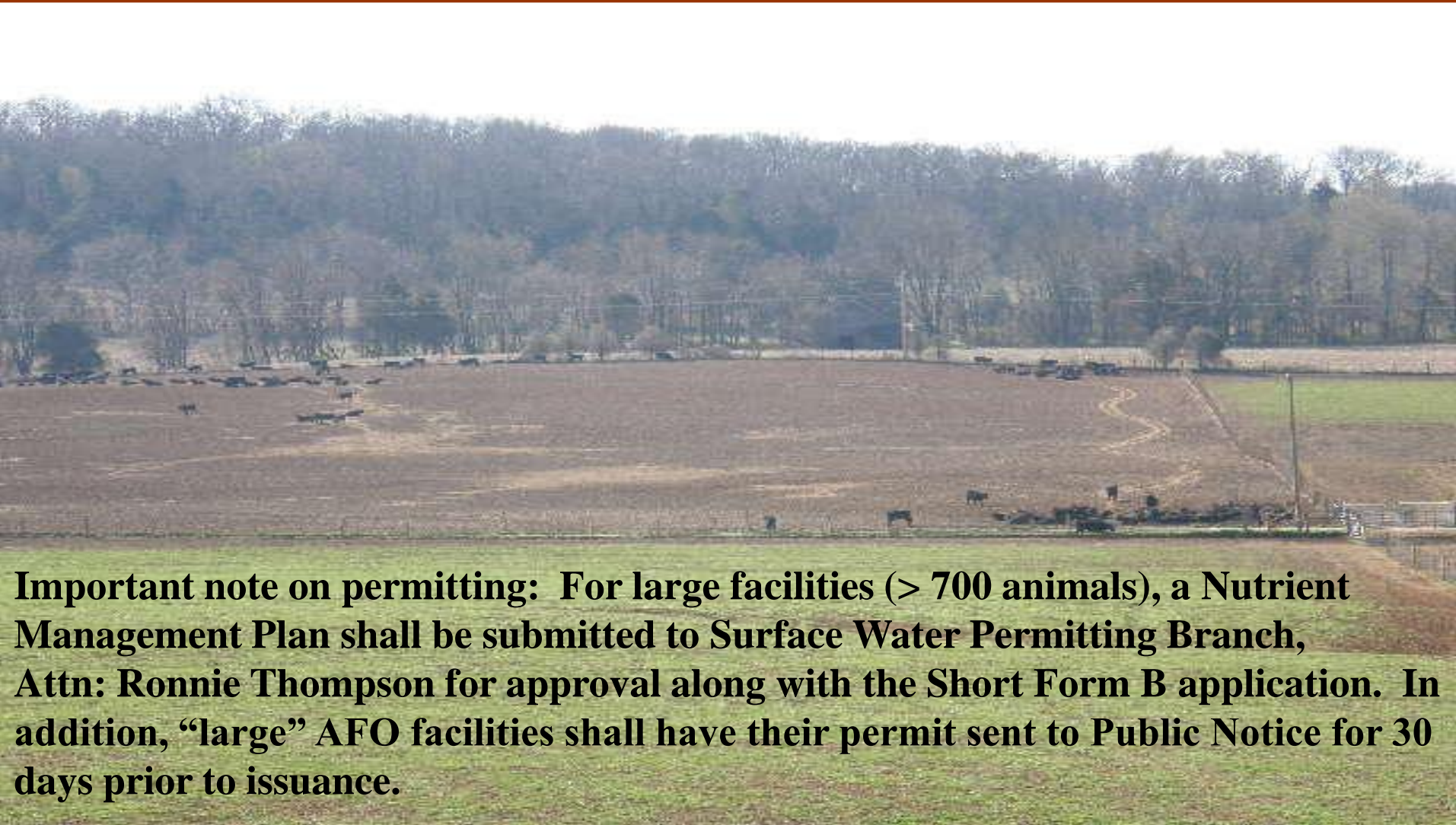
- 401 KAR 5:005 Section 25
  - Nutrient Management Plan

Development and implementation of a Kentucky Nutrient Management Plan is necessary for land application of manure and required by the permit. A Comprehensive NMP will no longer be required by the KNDOP conditions but may be a requirement of other agencies if the facility is seeking cost share funding. Plan should be on site and available for inspection upon request.





# How do you obtain a KNDOP permit?



**Important note on permitting: For large facilities (> 700 animals), a Nutrient Management Plan shall be submitted to Surface Water Permitting Branch, Attn: Ronnie Thompson for approval along with the Short Form B application. In addition, “large” AFO facilities shall have their permit sent to Public Notice for 30 days prior to issuance.**



# Land Application

- 401 KAR 5:005 Section 25 (5)
  - Land application records shall be maintained for a period of not less than 5 years. Records should include:
    - KYNMP
    - Soil samples
    - Date, time, volume, and location of land application events.
    - Other pertinent information as necessary.

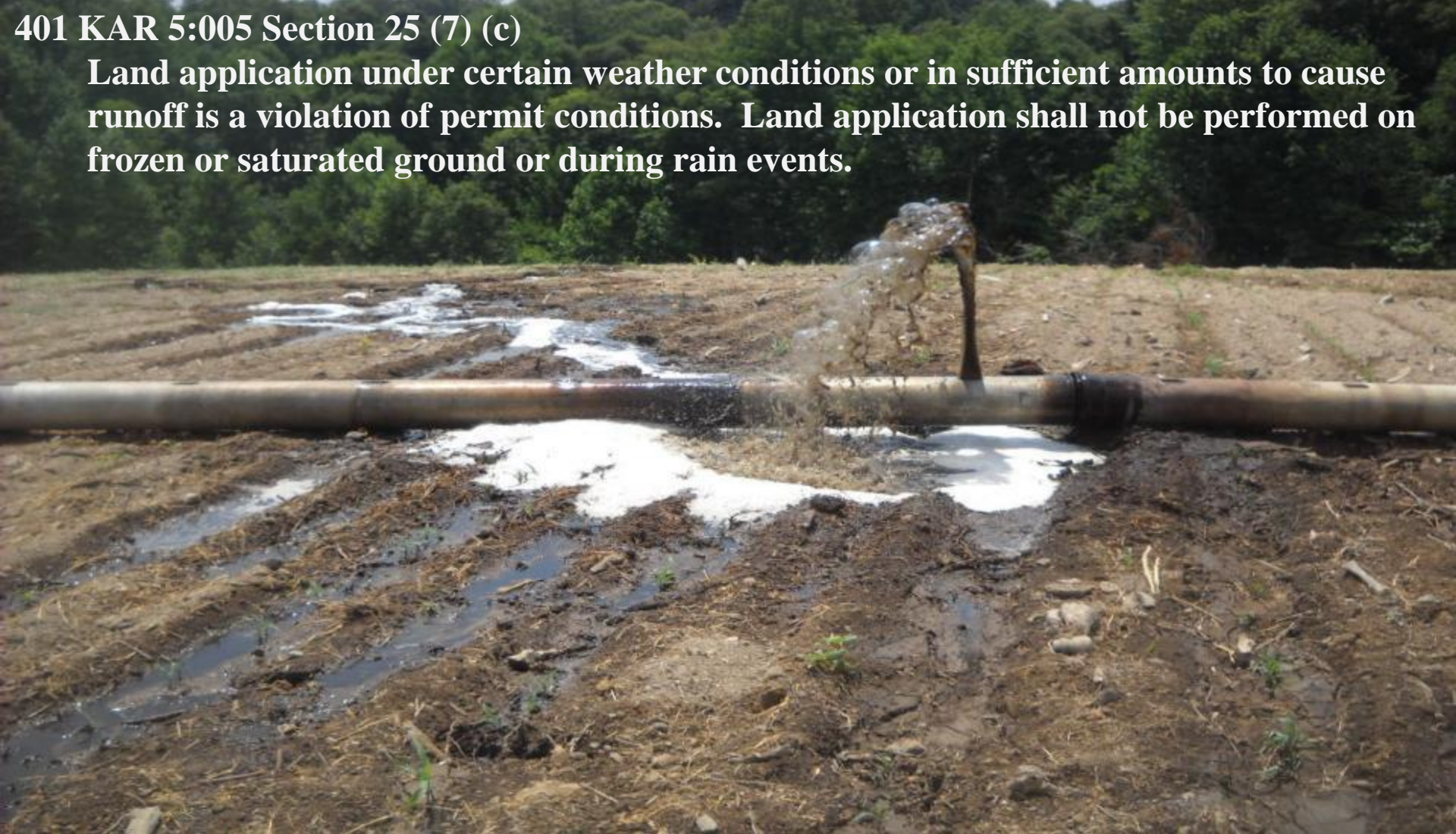




# Land Application

**401 KAR 5:005 Section 25 (7) (c)**

**Land application under certain weather conditions or in sufficient amounts to cause runoff is a violation of permit conditions. Land application shall not be performed on frozen or saturated ground or during rain events.**



# Do I need a Groundwater Protection Plan?

- 401 KAR 5:037 Groundwater Protection Plan
  - GPP's are NOT required for agricultural operations greater than 10 acres. AgWQ will serve as the plan for these facilities.
  - The one exception to this rule is if farmer/rancher engages in another money-making venture different from farming/ranching.
  - GPP development and certification can be a required remedial measure to non-compliance.





# Do I need a Groundwater Protection Plan?

- Questions shall be directed to:
  - Division of Water, Groundwater Section,
  - Attn: Ms. Pat Keefe, 200 Fair Oaks, 4<sup>th</sup> Floor,
  - Frankfort, KY 40601
  - (502) 564-3410
- <http://water.ky.gov/groundwater/Pages/GroundwaterProtectionPlans>



# What is wrong with this?



- 401 KAR 5:037 Groundwater Protection Plan
- KRS 224.71-120 Agricultural Water Quality Plan
- KRS 224.70-110 Pollutants in stream
- 401 KAR 10:031 Section 2 Stream degradation

Feeding operation beside an old drinking water well and along side a stream.





# Do you have a discharge???



## 401 KAR 5:055 Section 2

Per KNDOP conditions, point source discharges are prohibited. Examples of a point source discharge would be a discharging lagoon or a milk parlor drainpipe. All discharges must be eliminated, contained within the KNDOP storage structure, or permitted through Division of Water by obtaining a KPDES permit.



# Do you have a discharge???



Overflowing, unpermitted dairy lagoon with a point source discharge entering a local stream.



Multiple violations resulting in Enforcement referral!!!





# Basic Operation & Maintenance

- 401 KAR 5:005 Section 25 (3)

- Proper Operations per permit conditions

The facility shall be properly operated and maintained. Possible items evaluated would be daily and weekly inspections, corrective actions for deficient items noted in the inspections, level of waste within the lagoon and the amount of available freeboard available, waste disposal, and the handling of animal mortalities.



# Basic Operation & Maintenance

- 401 KAR 5:005 Section 25 (4)
  - Recordkeeping. Facility shall maintain written documentation of daily & weekly inspections, weekly lagoon levels, corrective actions implemented from inspection deficiencies, animal mortalities, and any spills or releases. Records must be maintained for a period of 5 years. Electronic records are allowed but shall be accessible for inspection upon request. If it is not documented, it was not done!



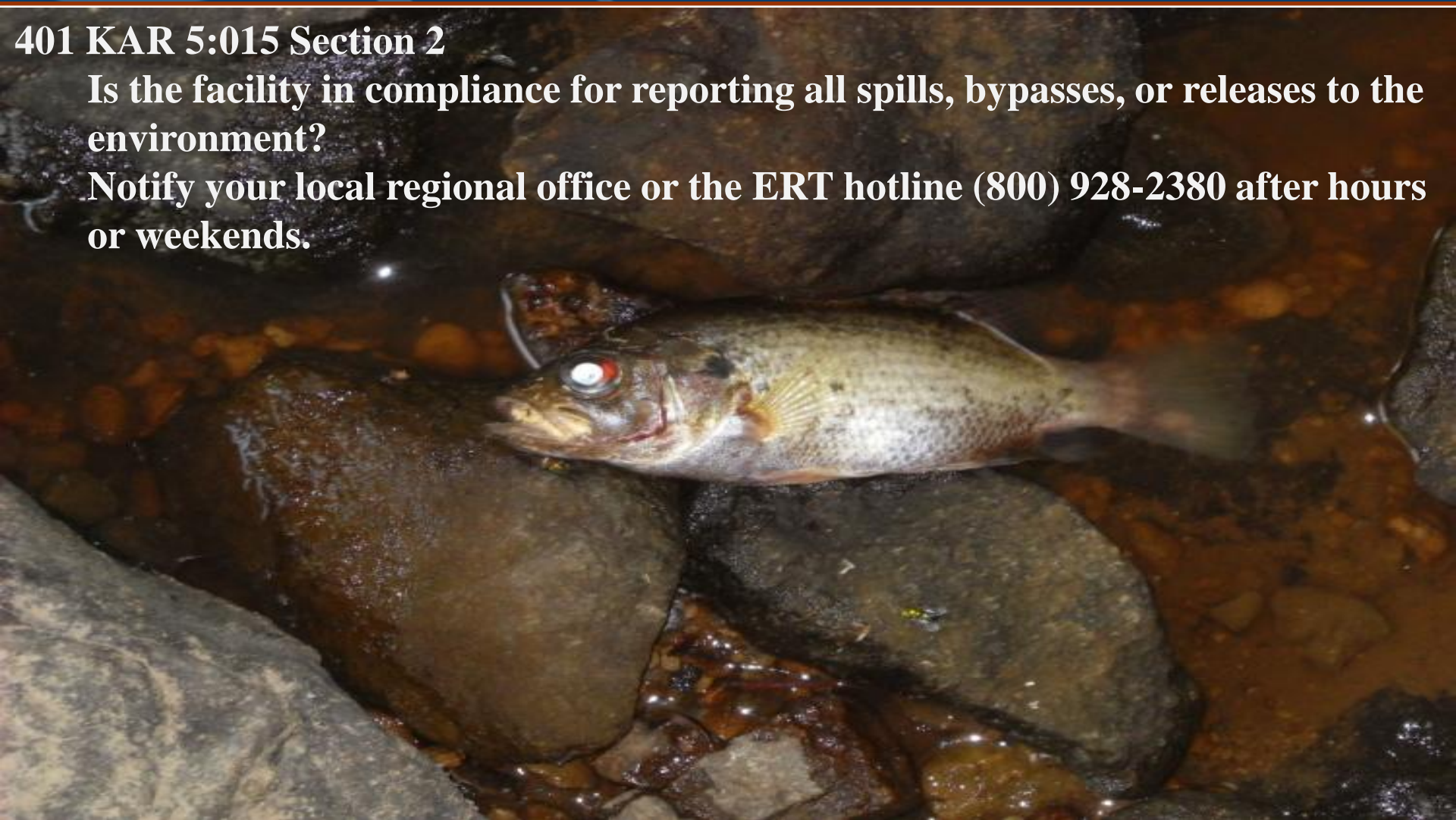


# Reporting spills, bypasses, or releases to the environment

## 401 KAR 5:015 Section 2

Is the facility in compliance for reporting all spills, bypasses, or releases to the environment?

Notify your local regional office or the ERT hotline (800) 928-2380 after hours or weekends.



# Reporting spills, bypasses, or releases to the environment

**When in doubt – Protect yourself & call!!!**  
**Any release hitting the Waters of the Commonwealth shall be reported.**





# Pollution

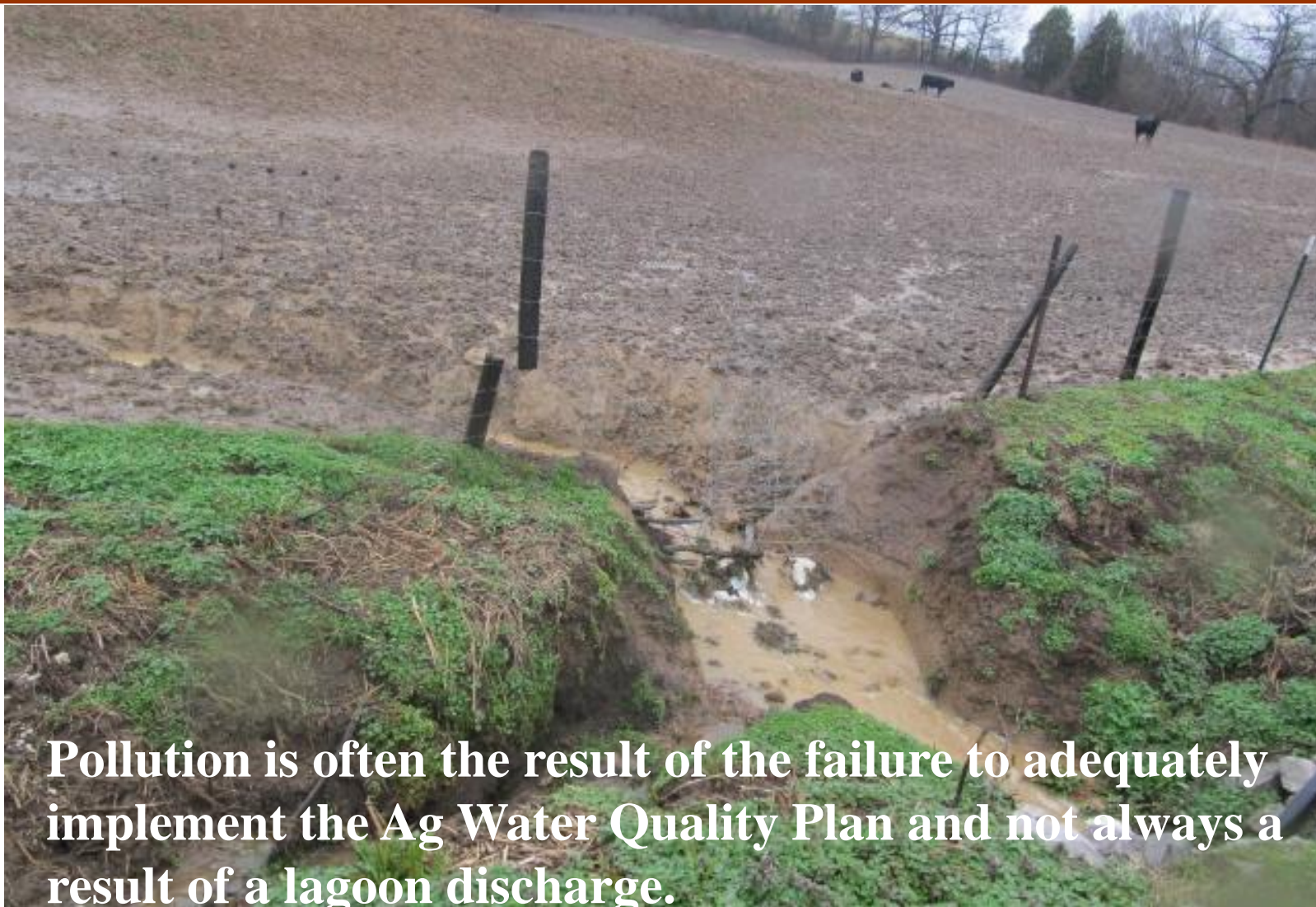
- KRS 224.70-110

- Pollutants in stream

No person shall, directly or indirectly, throw, drain, run or otherwise discharge into any of the waters of the Commonwealth, or cause, permit or suffer to be thrown, drained, run or otherwise discharged into such waters any pollutant, or any substance that shall cause or contribute to the pollution of the waters of the Commonwealth...



# Open Feedlot Operations



Pollution is often the result of the failure to adequately implement the Ag Water Quality Plan and not always a result of a lagoon discharge.





# Open Feedlot Operations



**The key to minimizing off site movement of top soil and nutrients is good feedlot design, implementing and maintenance of Best Management Practices.**



# Degradation

- 401 KAR 10:031 Section 2
  - Stream degradation

Surface waters shall not be aesthetically or otherwise degraded by substances that:

- (a) Settle to form objectionable deposits;
- (b) Float as debris, scum, oil, or other matter to form a nuisance;
- (c) Produce objectionable color, odor, taste, or turbidity;
- (d) Injure, are chronically or acutely toxic to or produce adverse physiological or behavioral responses in humans, animals, fish, and other aquatic life;
- (e) Produce undesirable aquatic life or result in the dominance of nuisance species;
- (f)1. Cause fish flesh tainting.
  - **Degradation is often the result of the failure to adequately implement the Ag Water Quality Plan and not always a result of a lagoon discharge.**





# I received an NOV/LOW – What now?

- Don't panic — It is not the end of the world, We all make mistakes, miss “things”, or could use some improvement.
- Your violation should be discussed with your inspector. Each situation is different as is each inspector, and farmer. Communication with Division of Water and your county conservation district is essential.
- A copy of the inspection report & NOV will be forwarded to the county conservation district so they can assist you in returning to compliance.
- Many times, an NOV/LOW will have a response date. Do not overlook your remedial requirements as specified in the NOV/LOW.



# Common Deficiencies

- During the inspection process, some of the more common deficiencies observed (in no specific order) are:
- Failure to have proper plans – AgWQ, GPP, & NMP.
- Failure to maintain copies of up-to-date plans – AgWQ, GPP, and NMP.
- Failure to maintain written inspections of facility.
- Failure to maintain adequate available freeboard in lagoon.
- Failure to report spills and releases
- Failure to implement AgWQ plan for entire farming operation - i.e. buffer strips, stream crossings, lack of established vegetation, animal mortality
- Failure to re-new permit in a timely manner.
- Straight Pipes (Point Source Discharges)





# KNDOP & GPP contact Information

- KNDOP application & permitting questions:
  - **Ronnie Thompson** – Surface Water Permits
  - ronnie.thompson@ky.gov
- GPP certification and plan questions:
  - **Pat Keefe** – Groundwater Section
  - Pat.Keefe@ky.gov
- Central Office – (502) 564-3410



# Division of Water Regional Offices

- Your first contact should always be with your inspector!

Office	Phone	Fax
Bowling Green	(270)746-7475	(270)746-7865
Columbia	(270)384-4734	(270)384-5199
Florence	(859)525-4923	(859)525-4157
Frankfort	(502)564-3358	(502)564-5043
Hazard	(606)435-6022	(606)435-6025
London	(606)330-2080	(606)330-2097
Louisville	(502)429-7122	(502)429-7125
Madisonville	(270)824-7529	(270)824-7070
Morehead	(606)783-8655	(606)783-8659
Paducah	(270)898-8468	(270)898-8640



Division of Water  
Field Offices





# Contact Information

- **Notify your local regional office or the ERT hotline (800) 928-2380 after hours or weekends.**
- **Brian Crump – Columbia Regional Office**
  - **brian.crump@ky.gov**
  - **(270) 384-4734**
- **Tina Martter – Bowling Green Regional Office**
  - **tina.martter@ky.gov**
  - **(270) 746-7475**

